

REMARKS

Applicant respectfully requests that the above-identified application be re-examined.

The May 2, 2007, Office Action ("Office Action") rejected Claims 1, 4, 6, 9, 11, and 14 on the ground of nonstatutory double patenting over Claims 1-3 of U.S. Patent No. 6,721,950. In this regard, a Terminal Disclaimer is enclosed. Applicant submits the submission of the Terminal Disclaimer renders this ground of rejection moot.

The Office Action also rejected Claims 1, 6, and 11 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,298,422 (Spilo et al.). Claims 4, 9, and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of the teachings of Spilo et al. Finally, Claims 2, 3, 7, 8, 12, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Spilo et al. taken in view of the teachings of U.S. Patent No. 5,898,419 (Liu).

Initially, applicant notes with appreciation the Examiner's comment at the beginning of the rejection of Claims 1, 6, and 11 under 35 U.S.C. § 102(e) as being anticipated by Spilo et al. and the rejection of Claims 4, 9, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Spilo et al. how the Examiner was interpreting a specific claim limitation. The comments note that the Examiner interpreted the limitation "the location of the actual application window that has been redirected" as covering the memory address of the window application having at least one of its windows redirected. While applicant disagrees with this interpretation, in order to advance the prosecution of this application, the claims have been amended to make it clear that the redirected window is represented on a display device as a texture map image and that messages are transformed to the location of the texture map image that represents the application window that has been redirected.

Prior to discussing in detail why applicant believes that all the claims in this application are allowable over the cited and applied references, a brief description of the disclosed subject

matter and brief descriptions of the cited and applied references are provided. The following discussion of the disclosed subject matter and the cited and applied references are not provided to define the scope or interpretation of any of the claims of this application. Instead, these discussions are provided to help the United States Patent and Trademark Office better appreciate important claim distinctions discussed thereafter.

Disclosed Subject Matter

A method, computer-readable medium, and system for redirecting an input message to a redirected application are disclosed. The redirected application has at least one of its windows redirected, the redirected window represented on a display device as texture map image. The method, computer-readable medium, and system determine if the input message is directed to a redirected application having at least one of its windows redirected ("redirected application"). If directed at the redirected application, the input message is intercepted. Intercepted input messages are transformed to correspond to the display location of the texture image map that represents the application window that has been redirected, if transformation is necessary. The input message (transformed if necessary) is redirected to the redirected application.

One application of the invention is redirection of user interactions with a graphical image that appears on a user's display, rather than an actual window object. More specifically, instead of an actual window object being displayed to a user, a texture map image appears and interacts with the user as though it were the actual window object of an application that has been redirected while the actual window object is hidden from a user. Redirection is required because operating systems do not normally recognize a texture map image, i.e., a textured polygon, as a window object. The present invention allows an operating system to recognize a texture map image by creating a two-dimensional bitmap in memory that maps the texture map image to an actual window object. The two-dimensional bitmap represents the actual location of the

redirected window that is represented as a texture map image. However, the actual window object is not displayed to the user but is merely represented in memory as if it does appear at the actual location. Input events, like mouse clicks, that are directed toward a texture map image may not correspond with the actual location of the redirected window. As a result, in accordance with the invention, input messages received from input devices are transformed, if necessary, and redirected to the actual location of the redirected window of the redirected application.

One implementation of the invention involves installing at least one hook to intercept input messages. Input messages intercepted by the hook are tested to determine if the input messages are directed to a redirected window of a redirected application. Input messages directed to a redirected window of a redirected application. Messages are transformed to correspond to the display location of the texture map image that represents the redirected application window. Updated input messages are sent to the redirected application.

U.S. Patent No. 6,298,422 (Spilo et al.)

Spilo et al. is directed to a method for reducing the memory requirements of an application program executing in a multi-tasking environment. Spilo et al. purports to improve the efficiency and operating ability of multi-tasking application programs by reducing the memory and CPU resources consumed by running inactive applications programs. The Spilo et al. method, which is preferably user activated, suspends an application program by discarding and/or compressing the memory occupied by an application at the time it is minimized, or at the direction of the user, preferably by selection of a button in the title bar of the application or some other similar program object. The method allegedly reduces the memory requirements and CPU consumption of an executing program in a suspended state by intercepting the entry points of the program. The contents of the memory occupied by the program and its data objects are then compressed. The compression data is stored in another

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region of memory. The memory region containing the original, uncompressed data is then designated as free memory. In essence, Spilo et al. discloses minimizing an application. Minimized applications are suspended and compressed in accordance with a plurality of steps described in the application.

Spilo et al. does not teach redirecting an input message to a redirected application, the redirected application having at least one of its windows redirected, the redirected window represented on a display device as a texture image map, much less a method, system, and computer-readable medium for achieving this result as recited in the claims, as discussed more fully below. At most, Spilo et al. teaches intercepting a message call to a minimized application. The intercepted message is either delayed while the minimized program is restored ("detected by the test ... cause restoration ... reissued"—Col. 5, lines 13-16) or the message is discarded ("messages are discarded"—Col. 5, lines 9-11). Spilo et al. does not teach transforming a message; Spilo et al. merely teaches intercepting a message and either discarding the message or sending it on to its original destination. The only mention of redirection in Spilo et al. is to a procedure, not to a redirected application, that analyzes messages to see if they should be forwarded on to their original destination or discarded (Col. 5, lines 2-20).

U.S. Patent No. 5,898,419 (Liu)

Liu is directed to a method and apparatus for scaling a cursor on a local computer to have the same size relative to a window on a local computer as another cursor has to another window on a remote computer. More specifically, Liu describes a first computer workstation 810 linked to a second computer workstation 820. The window 812, which is displayed in the first computer workstation, is copied to window 822 at the second computer workstation. A hook procedure is used to intercept movement of the cursor 814 at the first workstation. These movements are transmitted together with representations of the cursor image over the link from

the first computer workstation to the second computer workstation. The cursor image is then displayed 824 at the second computer workstation in a position corresponding to the position at the first computer workstation. The size of the cursor image is scaled. The cursor has the same size relative to the windows of the second computer workstation as it had relative to the window of the first computer workstation. Liu teaches scaling from a two-dimensional object on one screen to a two-dimensional object on another screen. Liu does not teach or suggest the subject matter of the dependent claims to which Liu is applied, particularly when that subject matter is considered in combination with the claims for which these claims depend.

Claims 1-3, 6-8, and 11-13

Claims 1, 6, and 11 are generally similar except that Claim 1 is directed to a method, Claim 6 is directed to a computer-readable medium, and Claim 11 is directed to a computer system. For purposes of brevity, only one of the claims will be discussed here, namely, Claim 1. Similar arguments apply to Claims 6 and 11. Claim 1 reads as follows:

1. A method of redirecting an input message to a redirected application, the redirected application having at least one of its windows redirected, the redirected window represented on a display device as a texture map image, comprising:
 - (a) determining if the input message is directed at a redirected application having at least one of its windows redirected ("redirected application");
 - (b) intercepting the input message if directed at the redirected application;
 - (c) if required, transforming the input message to correspond to the display location of the texture map image that represents the application window that has been redirected if the input message is directed at the redirected application; and
 - (d) redirecting the input message to the redirected application if the input message is directed at the redirected application.

As discussed above, neither Spilo et al. nor Liu is directed to methods, computer-readable medium, or a system for redirecting an input message to a redirected application, the redirected application having at least one of its windows redirected, the redirected window represented on a display device as a texture image map. Contrary to comments made in the Office Action, Spilo et al. does not teach or suggest redirecting an input message to a redirected application if the input message is directed to the redirected application. More importantly, Spilo et al. does not disclose a redirected application having at least one of its windows redirected wherein the redirected window is represented on a display device as a texture map image as recited in the preamble of Claim 1. Spilo et al. has nothing whatsoever to do with this subject matter.

Spilo et al. also does not teach or suggest the recitations set forth in the body of Claim 1 (and Claims 6 and 11) when those recitations are considered as a whole and when considered in combination with the preamble of Claim 1 (and Claims 6 and 11). Spilo et al. does not teach or suggest determining if an input message is directed at a redirected application having at least one of its windows redirected (wherein the redirected window is represented on a display device as a texture image map). While Spilo et al. does suggest intercepting messages, the messages are not directed to a redirected application. More importantly, Spilo et al. does not teach or suggest transforming input messages to correspond to a display location of a texture image map that represents an application window that has been redirected if an input message is directed to a redirected application. Nor does Spilo et al. teach or suggest redirecting an input message to a redirected application if the input message is directed at the redirected application when this subject matter is considered in context with the remaining elements of Claim 1 (and Claims 6 and 11). Since Liu also does not disclose, teach, or suggest the subject matter that Spilo et al. lacks, applicant respectfully submits that Claims 1, 6, and 11 and the rejected claims dependent therefrom (Claims 2, 3, 7, 8, 12, and 13) are clearly allowable.

Claims 4, 9, and 14

As noted above, Claims 4, 9, and 14 were rejected in the Office Action under 35 U.S.C. § 103(a) as being unpatentable in view of the teachings of Spilo et al. Of these claims, Claim 4 is a method claim, Claim 9 is a computer-readable medium claim, and Claim 14 is a computer system claim. Since the claims are similar, for purposes of brevity, only Claim 4 will be discussed in detail here, it being understood that the same arguments are applicable to Claims 9 and 14.

Claim 4 reads as follows:

4. A method of redirecting input messages meant for a redirected application, the redirected application having at least one of its windows redirected, the redirected window represented on a display device as a texture map image, comprising:

- (a) installing at least one hook to intercept input messages;
- (b) receiving input messages intercepted by the hook;
- (c) determining if the input messages are directed at said at least one window of the redirected application;
- (d) if required, transforming the input messages to correspond to the display location of a texture map image that represents said at least one window of the redirected application; and
- (e) sending the input message to the redirected application.

As discussed above with respect to Claims 1, 11, and 12, Spilo et al. does not teach or suggest a method, computer-readable medium, or computer system for redirecting input messages meant for a redirected application, the redirected application including at least one of its windows redirected, the redirected window represented on a display device as a texture map image map as recited in the preamble of Claims 4, 9, and 14. Nor does Spilo et al. teach or

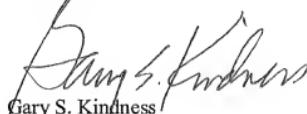
suggest the subject matter recited in the body of Claims 4, 9, and 14, particularly when considered in combination and in conjunction with the preamble of these claims. More specifically, Spilo et al. does not teach determining if input messages are directed to, at least one window of a redirected application, and transforming the input messages to correspond to the display location of a texture image map that represents said at least one window of the redirected application. As discussed above, Spilo et al. has nothing whatsoever to do with displays, much less a display location of a texture image map that represents a window of a redirected application. As a result, applicant respectfully submits that Claims 4, 9, and 14 are also allowable.

Conclusion

In view of the foregoing comments, applicant respectfully submits that all of the claims in this application are clearly allowable. Consequently, early and favorable action allowing these claims and passing this application to issue is respectfully solicited. If the Examiner has any questions, he is invited to contact applicant's attorney at the number set forth below.

Respectfully submitted,

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